

**SURGICAL REHABILITATION OF PATIENTS WITH JAW BONE ATROPHY USING BONE TRANSPLANTATION**

1 Nazarova Shakhnoza Khasanovna

Doctoral student of the Department of Maxillofacial Surgery Tashkent State Dental Institute

2 Nazarov Zafar Ziyodullaevich

Senior Lecturer of the Department of Surgical Dentistry and Dental Implantology Tashkent State Dental Institute

3 Djakhangirova Dilorom Abdulxaevna

Assistant of the Department of Maxillofacial Surgery of the Tashkent State Dental Institute

4 Pulatova Barno Juraxanovna

DSc, Professor, Alfraganus University

**Abstract**

Relevance of the topic. Every year the number of dental implants installed by dental surgeons and maxillofacial surgeons is steadily growing. One of the contraindications indicating the impossibility of installing a dental implant in patients. The presence of a severe degree of alveolar bone atrophy in a patient, which sharply limits the possibility of dental implantation, often occurs with tooth loss. Currently, there is an active search for prerequisites for expanding the indications for dental implantation surgery, for which various surgical techniques are recommended to increase the volume of alveolar bone tissue. Unfortunately, even today the problem of choosing methods and materials for increasing the volume of alveolar bone tissue of the jaws has not been fully resolved, taking into account the features of the regenerative processes of the alveolar bone when increasing its volume, anatomical and structural features of bone tissue in a specific clinical situation.

One of the main directions in solving the problem of increasing the volume of the alveolar process of the jaw is the use of bone autoplasty. For this purpose, auto transplantation of bone blocks was most often used, and to this day this technique is the "gold standard".

It has been established that in order to guarantee effective transplantation, it is necessary to make the correct choice of the donor area, determine the method of operation, as well as the optimal time for installing implants after



---

plastics. To date, there is no convincing data on the degree of autograft resorption and no criteria are specified anywhere that should be followed when choosing donor zones. Meanwhile, each specific clinical situation requires an individual approach to choosing a donor zone and individual tactics for collecting a bone graft.

### **The Goal**

The aim of our study was to increase the effectiveness of surgical rehabilitation of patients with jaw bone atrophy through the use of bone transplantation and dental implantation.

### **Treatment Methods**

Augmentation was performed by transplanting autogenous bone. The operation was performed under local infiltration anesthesia with anesthetic support. The anesthesiologist administered drug sedation throughout the operation by means of dosed intravenous administration of propofol.

### **Results**

The recipient area was prepared by making a trapezoidal incision in the area of tooth 1.1. The incision did not affect the circular ligaments of teeth 1.2 and 2.1 and was directed with its base to the transitional fold. Next, the alveolar process was skeletonized. The values of all parameters fully reflected the results obtained at the planning stage using CBCT. After determining the parameters of the required bone graft and for the purpose of further planning of the work in accordance with the described technique, a study of the oblique line of the lower jaw was carried out according to the following scheme. Under infiltration anesthesia, an incision of the mucous membrane was made along the oblique line with an extension to the branch of the lower jaw, the mucoperiosteal flap was separated and the oblique line was skeletonized. Then, using a Lindenman cutter, a bone block was cut out. Completion of the work on isolating the block was carried out with a bone chisel. At the next stage, using a larger-diameter circular saw, the obtained bone block was split into two plates, one of which was fixed with titanium screws at a certain distance from the recipient zone (6 mm). The second fragment, remaining from the obtained block, was processed in a bone mill. Then we used the bone chips formed during the processing to fill the resulting cavity. Then we covered all areas with a bioresorbable membrane. The membrane was fixed with titanium pins. At the next stage of the operation, the mucoperiosteal flap was mobilized by stratification. The wound was sutured tightly in the form of "kissing" flaps.

A dental implant measuring 3.3 x 10 mm was installed. Then, after 3 months, in order to create a fixed gum around the implant, a gum former was installed on a narrow platform with simultaneous plastic surgery of the soft tissues of the vestibule of the oral cavity.



---

Based on the analysis of the results of the clinical studies, the following conclusions can be drawn:

1. In order to reduce the cost of such operations, it is possible to use autologous material in the form of bone chips.
2. In order to reduce trauma in the area of a large defect, it is possible to use autologous material as bone autoblocks.